

RESULTS AND DISCUSSION

TURBIDITY

The turbidity of the water in the control test changed very little between the entrance and the exit of the stilling basin (fig. 5). Similar findings have been shown for sediment basins on construction sites, with turbidity changing very little over time (Przepiora et al., 1998). The treatment with coir baffles had significantly lower turbidity than the control, but these reductions were relatively minor. The addition of the BILS to the coir baffles resulted in a significant turbidity reduction compared to coir baffles alone. The turbidity decreased from 227 to 155 NTU within 2.2 m and changed little from this point to the outlet. We did not test the BILS alone, but it appeared to significantly improve turbidity reduction when used with at least one coir baffle.

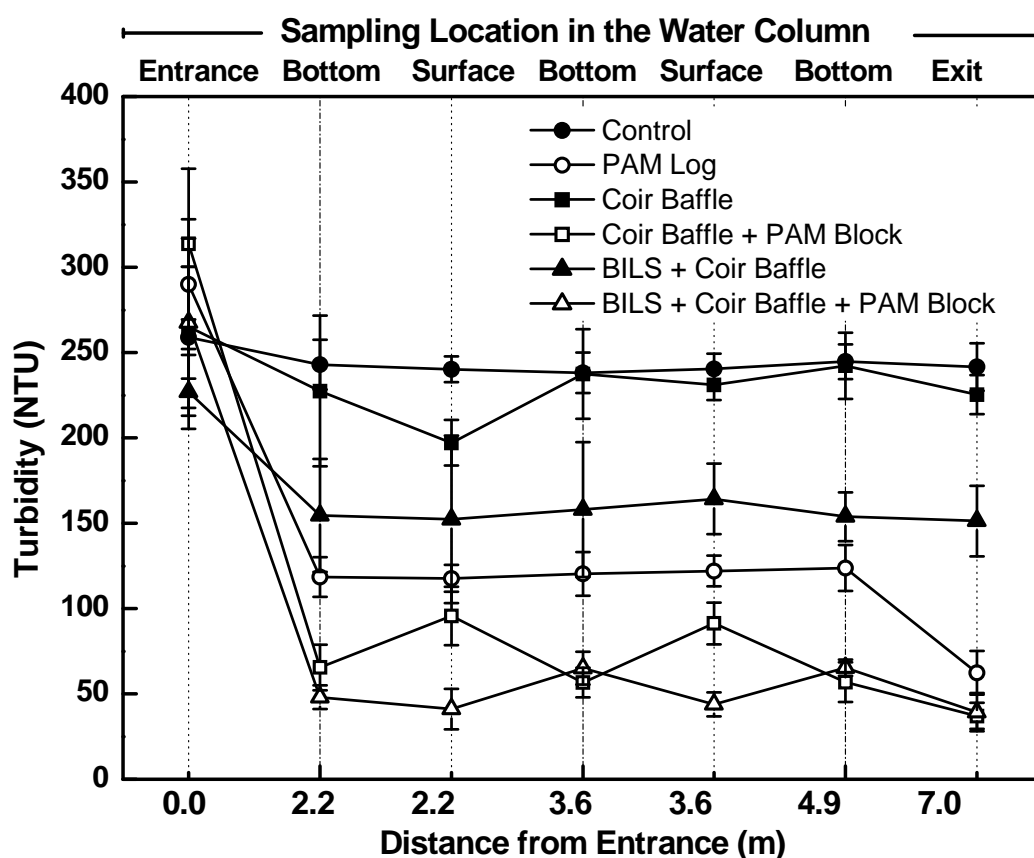


Figure 2-5. Treatment effects on turbidity within the stilling basin under with either no baffles or three coir baffles.

The greatest reduction in turbidity was achieved with PAM treatments. With no baffles, the turbidity dropped at the first sampling point and did not change until the water reached the outlet, where the turbidity dropped significantly. This could have been a result of the flocs being intercepted by the sloped (2:1) wall of the basin at the outlet. Turbidity was greater at the surface after the first and second coir baffle, but the BILS dampened that